Fiber to the Premises includes FTTC and FTTH

FTTC and FTTH are equivalent architectures with respect to services supported

Competitive impairment standard is met with FTTC and FTTH

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Summary

- **Marconi is a Leading supplier of Broadband Access equipment**
  - Greater than 2 million Fiber to the Premise lines shipped
  - FTTH and FTTC systems
- **The decision to deploy FTTC or FTTH should not be driven by arbitrary regulatory classification**
- **Unnecessary unbundling obligations on FTTC will create disincentives; subscribers will be denied access unnecessarily to advanced services**
- **FTTH and FTTC provide equivalent service capabilities**
  - "Next Generation Services"
  - Voice, high-speed data and multi-channel video
  - Both enable equivalent revenue opportunities
- **Competitve impairment standard is met with both architectures**

Marconi urges the Commission on reconsideration to modify the Triennial Review Order and its Rules to afford the same unbundling obligations with regard to FTTC and FTTH

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Commission's Definition of and Classification of FTTC has been inconsistent

- **Dec 20 NPRM implied equivalency between FTTC and FTTH**

  "For example, should we distinguish between the deployment of fiber optic facilities directly to the home (i.e., fiber to the curb) and fiber optic facilities only to remote terminals?"

  Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, FCC 01-361, Released December 20, 2001 at ¶ 50.

- **Feb 20 Press release appeared to treat them separately**
  - referred to fiber-to-the-home and hybrid loops where incumbent LECs deploy fiber further into the neighborhood but short of the customer's home
- **September release of text was more explicit, albeit in footnotes, without a full analysis of FTTC vs. other hybrid architectures**
- **Marconi has now met with Commissioners and their staff to bring this issue to their attention and to supplement the docket so that this issue is addressed based on a full record**

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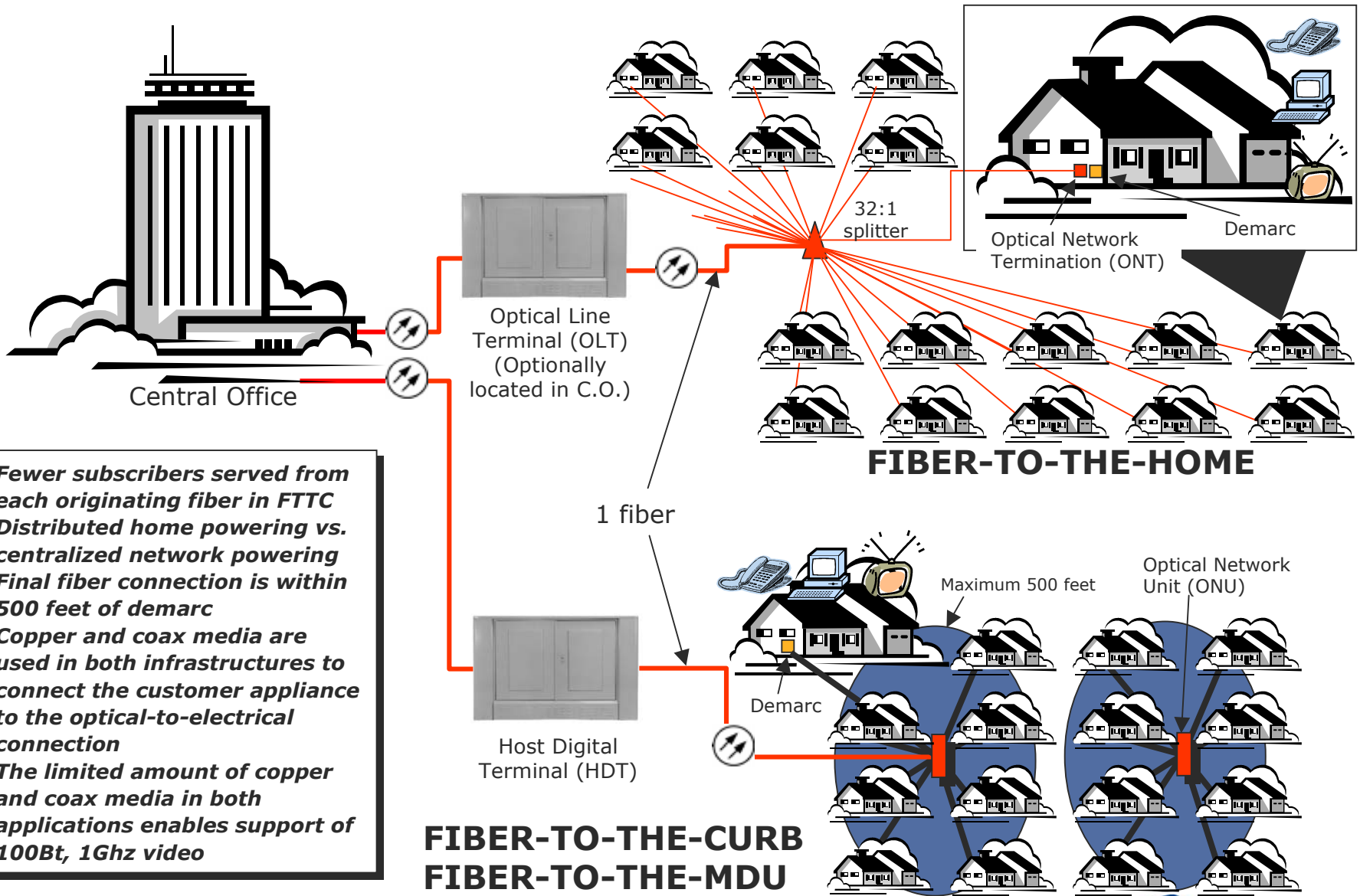
Fiber to the Premise networks



- ***Fewer subscribers served from each originating fiber in FTTC***
- ***Distributed home powering vs. centralized network powering***
- ***Final fiber connection is within 500 feet of demarc***
- ***Copper and coax media are used in both infrastructures to connect the customer appliance to the optical-to-electrical connection***
- ***The limited amount of copper and coax media in both applications enables support of 100Bt, 1Ghz video***

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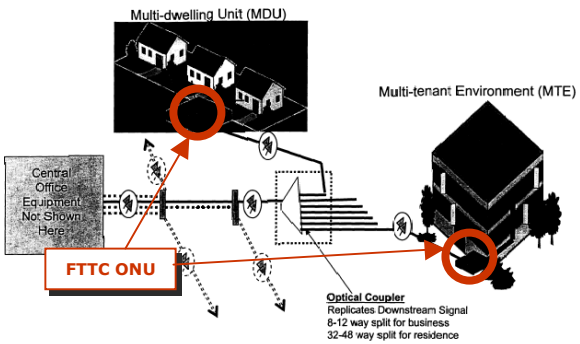
Fiber to the Premises includes FTTC

- **BellSouth, SBC, Verizon defined Fiber to the Premises (FTTP) in May 2003**
- **FTTP includes FTTC**
- **Networks "that offer nearly limitless bandwidth . . ."**
- **MDU, MTE require FTTC**

MDU / MTE



SBC Communications Notice of Ex-Parte, 10-1-2003

BellSouth, SBC Communications And Verizon Adopt Common Technical Requirements For Fiber To The Premises, Will Seek Equipment Proposals For Potential Network Deployment

Anticipated FCC Broadband Ruling Next Major Step on Path to New Networks With Nearly Limitless Bandwidth for Internet, Voice and Innovative Video Applications

May 29, 2003

Media contacts:
See end of release

ATLANTA, SAN ANTONIO, and NEW YORK - Three of the nation's largest telecommunications service providers -- BellSouth (NYSE:BLS), SBC Communications Inc. (NYSE:SBC) and Verizon (NYSE:VZ) -- have adopted a set of common technical requirements based on established industry standards and specifications for a technology known as fiber to the premises (FTTP). These advanced fiber-optic systems can be used to connect homes and businesses to telecom networks.

Today's announcement is a major step in paving the way for deployment of next-generation broadband networks that offer nearly limitless bandwidth for home and business Internet, voice and innovative new video services. FTTP, whether to the curb or to the building, will provide an ideal platform to support a number of emerging and evolving applications, such as interactive gaming, photo sharing, PC backup and telecommuting, along with video conferencing, premises surveillance and other novel video services, which could be delivered on demand and in high definition.

The use of common technical requirements, based on existing technical standards, will enable equipment manufacturers to more cost-effectively develop and build FTTP equipment for BellSouth, SBC Communications, Verizon and other service providers. Today's announcement positions the industry for economic deployment of fiber optics much closer to homes and businesses, enabling these communications customers to see faster rollout of powerful broadband services. In addition, the new technology will offer enhanced overall network reliability and service quality.

The three service providers today issued a letter to telecom equipment manufacturers, alerting them that the providers will soon be seeking proposals for equipment based on the common requirements. BellSouth, SBC

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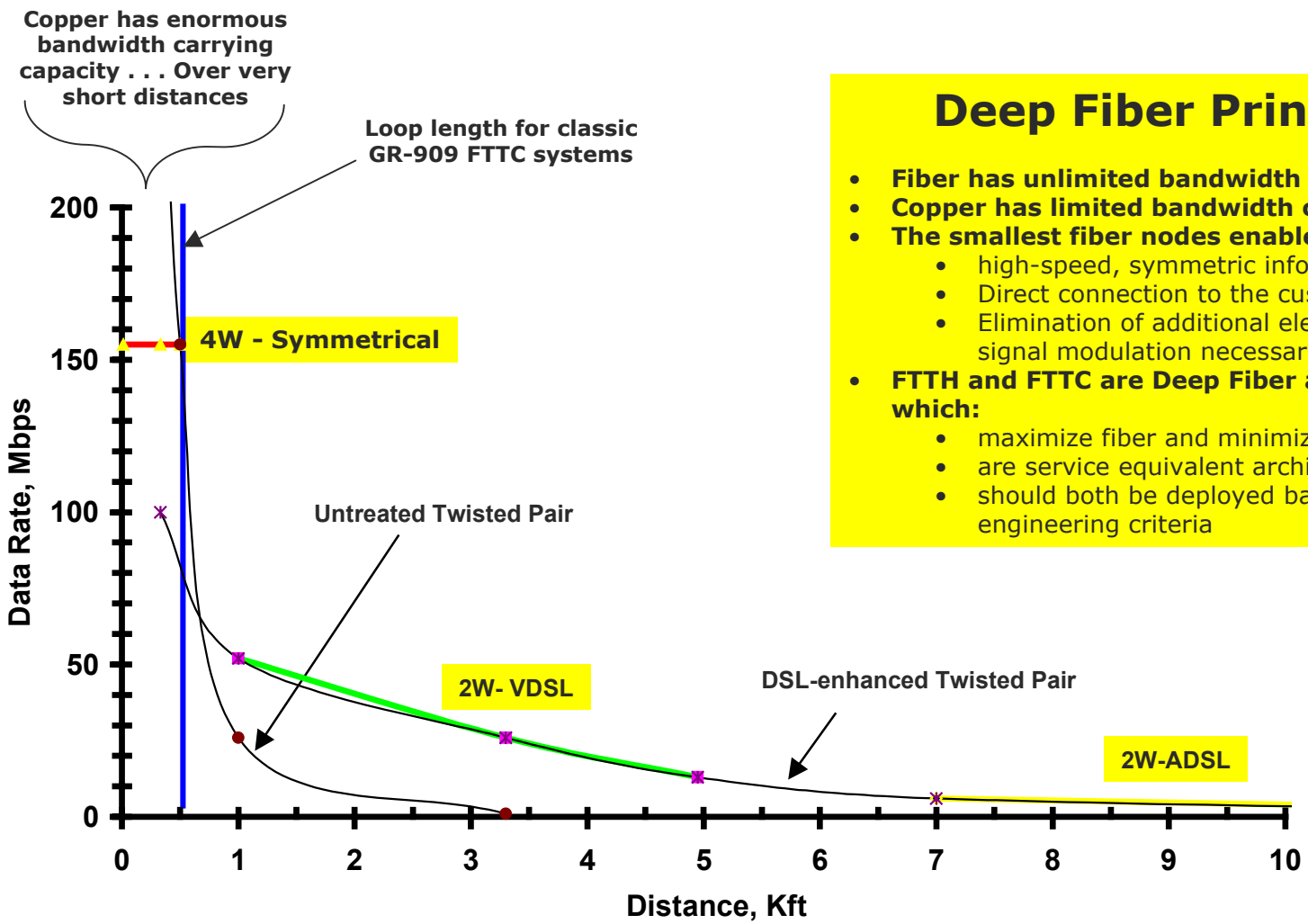
The Value of Deep Fiber Deployment



Bandwidth Carrying Capacity of Twisted Pair Copper

Deep Fiber Principles

- **Fiber has unlimited bandwidth capacity**
- **Copper has limited bandwidth capacity**
- **The smallest fiber nodes enable**
  - high-speed, symmetric information delivery
  - Direct connection to the customer appliance
  - Elimination of additional electronics – no signal modulation necessary
- **FTTH and FTTC are Deep Fiber architectures which:**
  - maximize fiber and minimize copper
  - are service equivalent architectures
  - should both be deployed based on applicable engineering criteria

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FTTH and FTTC are service-equivalent architectures

- **FTTC systems provide broadband services today and tomorrow**
  - 300,000 homes passed with native mode, 10Bt ethernet
  - 600,000 homes passed with 750Mhz and 860Mhz RF-based Broadcast video
  - 100Bt and even 1000Bt[1] can be delivered from FTTC . . . in addition to multi-channel video
- **Deep Fiber FTTC architectures enable:**
  - Fiber-to-the-home functionality
  - Deployment cost parity with copper
  - Compatibility with today's network operations and powering paradigm
  - Broadband delivery to MDUs
- **Fiber to the Home is the ultimate migration**
  - . . . at least, in single family applications
  - Not a service-enabling issue
  - Economics is the driver: deferred capex for lower densities and penetrations; lower OPEX

[1] Marvell Semiconductor has developed robust PHY transceiver technology devices that greatly exceed the requirements of the IEEE Gigabit Ethernet standard (GigE). While GigE is a four pair standard, these devices will also automatically adapt to Fast Ethernet in the 100 Mbps, two-pair environment typical of FTTC. According to Marvell, their products provide Full duplex Gigabit transmission up to 180 meters using Category 5 cable while maintaining a Bit Error Rate of 10^{-10} or better. This represents an 80% increase in cable distance relative to the 1000BASE-T standard

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The Impairment Analysis is the same for Fiber-to-the-Curb and Fiber-to-the-Home

- **Fiber to the Curb systems are deployed by ILECs, CLECs, MSOs**
  - FTTC systems have been shipped to competitive carriers
    - Overbuild and greenfield applications
    - 75,000 homes passed by Grande Communications, Knology providing voice, high-speed data and multi-channel video services in overbuild applications
    - Litestream, FCI Broadband, others have deployed FTTC in greenfield applications
  - FTTC systems have been shipped to two ILECs
    - BellSouth, Sprint Local Telecom Division
    - 490,000 homes passed with video, high-speed data or a combination of both
  - FTTC systems have been shipped to one major MSO
    - AT&T Broadband, now Comcast
    - 24,000 homes passed with voice, high-speed data and multi-channel video services
- **ILECs are not advantaged; CLECs are not dis-advantaged**
  - ILEC networks must be engineered for FTTC/FTTH on day 1
  - Success of competitive carriers deploying FTTC is comparable to FTTH deployment by this type of carrier

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Conclusion

- **The Commission should create incentives for the deployment of advanced services without regard to the particular technology used**
- **FTTC and FTTH networks similarly provide advanced services with the capability of speeds of 100 Mbps or more**
- **The impairment standard is met for both FTTH and FTTC**
- **The Commission can help extend the availability of advanced services by reducing the unbundling obligations on FTTC in the same manner it did for FTTH**

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